

A Comparative Study of Physical Exercises on Promoting Students' Physical and Mental Health, Cultivating Will and Influencing Factors

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Abstract: under the Background of “Great Health”, the Physical and Mental Health of College Students Has Been Highly Valued by All Walks of Life. in College Sports, Relying Solely on Physical Education Time Can Not Meet the Needs of Students' Sports, and It is Necessary to Use Other Forms of Sports as a Useful Supplement. College Physical Education Teachers Should Take the Initiative to Change the Teaching Concept, Base on the “Big Health” Requirements, Cultivate Students' Sports Habits, and Promote Students' Physical and Mental Health Development. Physical Exercise is an Effective Means to Improve Physical Health. Its Meaning and Function Are Not Only Fitness, But Also Play a Good Role in Regulating and Promoting Mental Health and Will Cultivation, and Can Achieve Ideal Physical and Mental Health Benefits. However, in the Practice and Research of Health Management and Health Promotion Projects, It is Found That the Effect of Physical Intervention is Difficult to Sustain, and There is a Phenomenon of “Easy Participation and Persistence” in Physical Exercise. What is the Reason Why People can't Stick to It Well, Sports the Connection between Persistence and Withdrawal of Exercise and Physical and Mental Health is Also a Question Worth Exploring. Therefore, This Paper Has Carried out Related Research on the Factors Influencing the Physical and Mental Health and Willingness of Physical Exercise.

1. Introduction

In the School Sports Work, No Matter What Means, the Ultimate Goal Must Be Implemented to Enhance Physical Fitness, Which is Necessary to Improve the Quality of the Nation and the Foundation of Quality Education. with the Vigorous Development of Sports in China, the School Sports Work Has Made Great Progress, and the Physical Health of Students Has Been Greatly Improved. However, the Recent Monitoring of National Physique Health Shows That Due to the Unilateral Pursuit of the Rate of Enrollment, the Society and Schools Have a Tendency to Be Literate and Light, and the Burden of students' Schoolwork is Too Heavy, and the Rest and Exercise Time Are Seriously Insufficient. in Addition, the Restrictions on Sports Facilities and Conditions Are Normal [1]. Physical Education and Extracurricular Sports Activities Are Difficult to Guarantee. the Physical Function and Physical Quality of College Students Are Obviously Declining [2]. Obesity and Malnutrition Students Are Increasing Year by Year, and the Detection Rate of Many Major Diseases is Getting Higher and Higher. “If This Continues, the Nation Will Be Weak, the Country Will Be Unavailable, and the Army Will Have No Available Soldiers,” Which Will Directly Affect the Future of the Country and the Nation. Therefore, Paying Attention to Students' Physical Health Problems and Attaching Importance to Physical Science Research Will Contribute to the Sustainable Development of School Sports [3].

In the book “Noble Personality,” Orrison Madden said, “A person who can control his own will has a great power to promote society. This great power can fulfill his expectations and achieve his goals. A person's will is as strong as a diamond, and with this will guide himself toward the goal, then all the difficulties faced will be solved.” This shows that the key to a person's achievement is the quality of the will, not the The level of intelligence. With the rapid development of the market economy, the requirements for the quality of talents are getting higher and higher. If you want to go freely on the road of competition, you should have a strong will. Good will quality is of great significance to people's growth and achievement, especially to the future of social and economic development and increasingly fierce competition. In recent years, due to some reasons, the quality

of college students' willpower has shown some bad performances such as independence, dependence, persistence. In order to make college students better adapt to the changes of future society, this paper explores the relationship between the function and characteristics of physical education and the cultivation of physical and mental health and will quality, and combines the analysis of the status quo and causes of college students' will quality, trying to find a way to effectively cultivate and Ways to improve the quality and physical and mental health of the only child, for reference [4].

Physical exercise is an effective means to improve physical health. Its meaning and function are not only fitness, but also play a good role in regulating and promoting mental health and will cultivation, and can achieve ideal physical and mental health benefits. However, in the practice and research of health management and health promotion projects, it is found that the effect of physical intervention is difficult to sustain, and there is a phenomenon of "easy participation and persistence" in physical exercise [5]. What is the reason why people can't stick to it well, sports The connection between persistence and withdrawal of exercise and physical and mental health is also a question worth exploring. Therefore, this paper has carried out related research on the factors influencing the physical and mental health and willingness of physical exercise [6].

2. The Current State of Physical and Mental Health

2.1 Unhealthy Way of Working and Rest

Indulging in the network, irregular life and work and a light health and physical exercise concept, and even a completely liberalized life orientation is the main feature of modern college students' lifestyle. Staying up late is one of the most common unhealthy ways of working for college students, which seriously affects the physical and mental health of students [7]. Scientific research shows that adequate sleep is an important means to ensure physical and mental health. Sleep can play an important role in relaxing body and mind, gaining physical strength and regulating organ function. However, college students generally have a day and night phenomenon. The main purpose of their staying up late is to play online games, watch TV series, chat or read novels. Few students stay up all night for study. This unhealthy way of life and work not only affected the sleep time of other members of the dormitory, but also caused the students to have no energy to study the next day, and the learning effect was not good, forming a vicious circle.

2.2 Irregular Eating Habits

Reasonable eating habits are an important way to enhance the physical fitness of college students. However, many college students' eating habits are not healthy. They don't know the nutritional mix. They often choose food according to their own preferences, and they like to eat some spicy and stimulating food. Many girls still have the habit of eating snacks or the habit of not eating and losing weight. Boys have the habit of drinking and smoking, which seriously affects the physical fitness of students. These irregular eating habits make the physical fitness of college students a sub-healthy state. At present, college students' insomnia, stomach pain, lumbar pain, and emotional irritability are not uncommon. If left unchecked, it will have a serious impact on students' health.

2.3 Not Lasting Exercise Habits

Compared with high school, college students are more relaxed, college students have more free time, but most college students do not make full use of free time and cultivate good physical exercise habits. From a policy perspective, college students are required to exercise for one hour a day. After investigation, most of the students did not complete this requirement. There are many reasons why college students do not develop physical exercise habits. Students are busy studying in high school, and there are few habits of physical exercise; some schools lack physical exercise facilities, which leads to a weak awareness of college students' training; some students lack the spirit of suffering and suffering, and they are discouraged from physical exercise, which ultimately affects the effectiveness of physical exercise.

3. Analysis of the Influencing Factors of Physical Training on Will Training

The spirit of health lies in a healthy body. Japanese scholars Deshui and others have followed up on some college students. The results show that students with poor physical strength are relatively inferior, weak, subjective, stubborn, indifferent, obedient, and weak. Showing the opposite tendency. The inspiration for us is to cultivate the will, we should participate in various activities and strengthen physical exercise. Liang Li and Li Zhi once found in the survey of the relationship between college sports and the cultivation of will quality. Students who regularly participate in sports have stronger willpower than those who often participate in sports, especially in tenacity, self-control, decisiveness, Persistence and self-confidence are significantly better than those who do not participate in sports regularly, as shown in Table 1. It is not difficult to see from the table that there is a very close relationship between sports and the formation of good will quality. Persist in physical exercise, “persistence” itself is an important part of a strong will. Sports is an effective form of tempering will and exercising will. Physical activity requires willing cooperation and participation. If there is no strong will, learn. The content of good sports, the formation of willpower is inseparable from sports training.

Table 1 Comparison of Volition Quality

| | Tenacious | Self-control ability | Courage | Toughness |
|---------------------|-----------|----------------------|---------|-----------|
| Number of people | 110 | 120 | 80 | 130 |
| Regular exercise | 75 | 91 | 55 | 80 |
| percentage | 68.18% | 75.83% | 68.75% | 61.54% |
| Infrequent exercise | 35 | 29 | 25 | 50 |
| percentage | 31.82% | 24.17% | 31.25% | 38.46% |

3.1 Purpose and Intuitiveness

The action of human will is caused by certain motives, and the generation of motives often comes from clear and specific goals (purposes). In the physical education curriculum of non-sports students formulated by the school, various sports activities (such as track and field, ball, martial arts, swimming, chess, intellectual games, etc.) stipulate clear requirements for compliance assessment. To a certain extent, it has stimulated the students' enthusiasm for training and the strong desire to achieve goals. The process also trains and strengthens the purpose of college students in other actions. At the same time, the amateur physical exercise performed by college students for the purpose of strengthening the body and shaping the body also enhances their consciousness of action.

3.2 Moral Emotions

In the will action, whether it is the encounter and overcoming of internal and external obstacles, or the realization of the purpose will cause emotion; under the domination of will, emotion can become the driving force of action to promote people to overcome difficulties and persist in achieving their goals. For example, in sports competitions, in order to achieve excellent competition results, for individual, class, school or other collective honours, college students can fully mobilize personal emotions (or collectivism, internationalist sentiment) to maximize the difficulties Strive hard and strive to achieve the goal.

3.3 Desire for Exercise

Any labour, study, science, and cultural and sports activities require a person to show a firm, tenacious, and decisive spirit in order to achieve a certain purpose, and also need to show courage when necessary. Such as long-distance running, hurdling, football, basketball, table tennis, tug-of-war, swimming, taekwondo and many other sports, from training to competition, the college students' will quality can be consolidated and exercised; at the same time, students are doing sports. The praise, encouragement, criticism, punishment, etc. received during the activity can also exercise their will.

3.4 Differentiated Will Quality

Due to the personality characteristics of people, they will show different types of will in college students. And taking different physical exercise measures can correct the differentiated quality of college students to some extent. For stubborn and stubborn students, choose some self-exercise sports, such as swimming and long-distance running, to cultivate and enhance their consciousness, purpose and principle, so that they understand and appreciate the difference between stubborn and tenacious; For students who are timid and suggestive and hesitant, they choose projects that require quick response, such as Sanda, martial arts, basketball, table tennis, badminton, etc., to cultivate their bold, courageous and decisive qualities; Indiscreet students choose chess, go, shooting and other items to cultivate their calm and patient quality. For students who are too active and lack self-control, they choose quiet projects such as chess and yoga to cultivate their self-control ability. For students who lack perseverance, they chose long-distance running, swimming, gymnastics, rock climbing and other projects to stimulate their tough quality.

3.5 Discipline and Self-Control Ability

Self-regulation is the part of the will in self-consciousness. College students have obvious independence and resistance in self-control, and they have a strong sense of adulthood, and they are required to get rid of adult restraint and control. In view of the deficiencies inherent in college students, such as inertia and poor self-control ability, through the organization of military training and the implementation of long-term sports training programs, strict compliance assessment, so that college students develop a good habit of self-examination, self-monitoring, self-command and self-motivation The purpose and consciousness of behavior, overall concept, discipline and self-control ability are significantly improved.

Through the comparison of Table 2 and Table 3, we can see that the participants who insisted on physical exercise had a series of scientific physical exercise measures, and their will quality was exercised to varying degrees. Most of the students' learning and other activities have clear objectives, excellent academic performance, decisiveness, and ability to overcome difficulties in learning, life, and so on. They strictly demand themselves, actively pursue advancement, and their self-control is significantly enhanced. The indicators of its four dimensions have undergone significant changes. The quality of the will of those who did not adhere to physical exercise was significantly lower than that of the physical exercise group, and even lower than the level of the first test.

Table 2 Experimental Group Volition Quality Status Survey Results

| Volition | Strong | | Normal | | Weak | |
|---------------------|------------------|---------|------------------|---------|------------------|---------|
| | Number of people | Weights | Number of people | Weights | Number of people | Weights |
| Purpose | 32 | 52.1% | 13 | 35.3% | 9 | 12.6% |
| Decisive | 45 | 33.7% | 15 | 11.3% | 65 | 55.0% |
| Toughness | 34 | 24.6% | 16 | 12.3% | 90 | 63.1% |
| Infrequent exercise | 56 | 63.2% | 10 | 15.9% | 15 | 20.9% |
| Self-control | 43 | 29.3% | 21 | 14.6% | 86 | 56.1% |

Table 3 Control Group Volition Quality Status Survey Results

| Volition | Strong | | Normal | | Weak | |
|---------------------|------------------|---------|------------------|---------|------------------|---------|
| | Number of people | Weights | Number of people | Weights | Number of people | Weights |
| Purpose | 21 | 34% | 11 | 30% | 22 | 36% |
| Decisive | 34 | 27.1% | 13 | 10.9% | 78 | 62% |
| Toughness | 23 | 19.3% | 14 | 11.3% | 103 | 69.4% |
| Infrequent exercise | 45 | 55.2% | 8 | 13.7% | 28 | 31.1% |
| Self-control | 32 | 16.7% | 19 | 12.8% | 99 | 70.5% |

4. Influencing Factors of Physical Exercise Affecting Physical and Mental Health

There are few research results on the mechanism of physical exercise affecting physical and mental health and the conclusions are different. Studies have shown that controlling diet, exercise, taking antioxidants, lowering blood lipids and other methods can reduce fat sources, increase fat consumption, treat non-alcoholic fatty liver disease (NAFLD), and successfully reduce weight and prevent obesity-related Liver disease and insulin resistance and metabolic syndrome; exercise can reduce the sensitivity of high-density lipoprotein and insulin while reducing triglyceride and blood sugar, which is one of the intrinsic mechanisms of exercise prevention and treatment of NAFLD; Exercise can control blood sugar and delay the development of slow complications. However, there are still disputes and differences in the specific mechanism of action in the treatment of diabetes. There is still a need to study it. The current mainstream view is that “endocrine hormone secretion changes are exercise affecting bone health. “The important mechanism”, but this view is worth rethinking, because mechanical force can directly stimulate bone tissue to affect bone metabolism, and exercise promotes bone metabolism balance by improving the body's hormone secretion environment. This is only an indirect regulation method, and general strength fitness. Exercise does not significantly affect the basal secretion of hormones, so it needs to be deeper This mechanism is elucidated; exercise can induce adult hippocampal neurogenesis and increased expression of neurotrophic factors may be the main mechanism of exercise antidepressant, and similar to the antidepressant effect of drugs; moderate exercise can improve the body's aerobic capacity and It has a positive effect on mental health, but the mechanism of exercise delaying aging is still unclear, and a lot of work needs to be done.

4.1 The Promotion of Physical Exercise to the Circulatory System

Physical exercise can increase the stroke output of the heart, reduce the resting heart rate, and fully expand the coronary artery and rest enough. The blood supply to the heart muscle is sufficient, the capillary in the myocardium is increased, and the myocardial fibers are thickened, thereby increasing myocardial contraction. force. When the blood circulation is accelerated during exercise, it brings nutrients to the blood vessel itself, and also removes the metabolites of vascular cells, enhances blood vessel elasticity, eliminates deposits attached to the arterial wall to delay the hardening process, and reduces the peripheral resistance of the blood vessels. Regular physical exercise can increase the production and release of vasodilators from vascular endothelial cells, not only prevent vascular diseases such as hypertension and atherosclerosis, but also effectively enhance the immune function of lymphocytes and greatly improve the body's resistance. Li Zhaobo and other experimental studies have shown that rat vascular endothelial injury can lead to thickening of the intima, but if the movement persists after the injury, it can inhibit the intimal hyperplasia.

4.2 The Role of Physical Exercise in Promoting the Nervous System

The body is performing sports forging When refining, it is dominated by the nervous system. Physical exercise can enrich the mediators that transmit nerves in the synapses of nerve cells, and cause the release of many mediators when transmitting nerve impulses, thereby accelerating the transmission speed between the synapses and improving the nerves' ability to respond. Active participation in physical exercise can better tap the potential of the left and right hemispheres and promote the normal development of the nervous system, especially for some endurance sports such as middle, long distance running and football. People with good endurance can work and study for a long time, and they are energetic, clear-headed, and efficient. In addition, strengthening physical exercise can also effectively prevent neurosis and reduce the occurrence of neurological diseases.

4.3 Physical Exercise Promotes Bones

The American College of Sports Medicine (AC-SM) proposes that load training and resistance exercises can help increase bone density. The mechanisms by which exercise increases bone density

include mechanical stimulation of bones, activation of osteoblasts, and promotion of bone formation. Exercise increases bone blood flow and promotes prostaglandin release; exercise reduces the concentration of androgen in the blood of postmenopausal women, increases the concentration of estrogen, reduces the sensitivity of bone tissue to parathyroid (PTH), and reduces the viability of osteoclasts. Long-term exercise can lower the level of insulin in the blood, increase the levels of glucagon, catecholamines and thyrotropin, thereby increasing the content of bone minerals. According to research reports: the fast-moving form of fitness exercise is beneficial to the bone health of middle-aged and elderly women and maintains normal bone metabolism.

4.4 The Effect of Physical Exercise on Mental Health

Participating in physical exercise can not only promote human health from the perspective of physical fitness, but also promote mutual communication and communication between people, release psychological pressure and regulate psychological emotions. Studies have shown that physical exercise is an effective way to alleviate the stress response of college students and reduce tension. It is positively related to the self-confidence and self-esteem of college students. Physical exercise also plays an important role in promoting people's mutual interaction, overcoming loneliness, and cultivating psychological adaptability. Physical exercise has a significant improvement effect on the loneliness and well-being of the elderly, and loneliness plays a full mediating role in the process of physical exercise to improve the happiness of the elderly. Physical exercise has many benefits in delaying aging. Unlike maintenance, exercise can mobilize positive factors in the body, enhance the functions of various system organs, adapt to changes in the external environment, and thus improve the ability of the human body to work and disease resistance.

5. Conclusion

The influence of a person's will and physical and mental health on his or her life is very great, and it determines whether a person can achieve greater achievements. Therefore, it is especially important for college students to cultivate their physical and mental health and the quality of their will. The research in this paper shows that physical exercise plays an irreplaceable role in promoting the health promotion of college students. Only the subjective consciousness of college students participating in sports is strengthened, and their participation in sports activities can be active, so that they can consciously choose the healthy, scientific, and safe physical exercise methods and methods that they can truly realize. The importance of modern life, while effectively preventing the negative impact of physical exercise on physical and mental health, thus greatly enhancing their physical health. Excellent will quality is the decision of a person. The most important factor in achievement. Formulating and implementing a systematic and rigorous physical exercise program to strengthen the willingness of college freshmen in physical exercise has obvious effects on promoting the formation and development of college students' excellent will quality.

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